Commonwealth of Kentucky
Division for Air Quality

PERMIT APPLICATION SUMMARY FORM

Completed by: Keith Metzker

General Information

Name:	The Hennegan Company
Address:	7455 Empire Dr. Florence, KY 41042
Date application received:	October 9, 1997
SIC/Source description:	2752/Printing Commercial Offset Lithographic
AFS(10-digit) Plant ID:	21-015-00088
EIS #:	079-0280-0088
Application log number:	F366
Permit number:	V-98-032

Application Type/Permit Activity

[x] Initial issuance
[ ] Permit modification
__Administrative
__Minor
__Significant
[ ] Permit renewal

[ ] General permit
[ ] Conditional major
[x] Title V
[x] Synthetic minor
[ ] Operating
[x] Construction/operating

Compliance Summary

[x] Source is out of compliance
[x] Compliance schedule included
[x] Compliance certification signed

Applicable Requirements list

[x] NSR
[ ] PSD
[ ] NSPS
[ ] NESHAPS
[x] SIP
[x] Other

Miscellaneous

[ ] Acid rain source
[ ] Source subject to 112(r)
[x] Source applied for federally enforceable emissions cap
[ ] Source provided terms for alternative operating scenarios
[ ] Source subject to a MACT standard
[ ] Source requested case-by-case 112(g) or (j) determination
[ ] Application proposes new control technology
[x] Certified by responsible official
[x] Diagrams or drawings included
[ ] Confidential business information (CBI) submitted in application
[x] Pollution Prevention Measures
[x] Area is non-attainment (list pollutants): VOC

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
PM	0.611	0.611
SO_2	0.031	0.031
NOx	5.133	5.133
CO	1.078	1.078
VOC	88.349	179.123
HAP ≥ 10 tpy (by CAS)	None above 10 tpy	None above 10 tpy

SOURCE PROCESS DESCRIPTION:

The source consists of 2-6 color web heat set ink presses, 1 UV curing coating applicator, 1-5 color sheet fed press using air drying ink, 4-6 color sheet fed presses using air drying ink, and 1-8 color sheet fed press using UV drying ink. The source has also applied to install an additional 8 color sheet fed printing press that will use UV drying ink.

Both the 6 color web heat set ink presses consist of 6 applicators which use a fountain solution to distinguish print area from non-print area, an oven vented outside the building without any controls, and a chiller. The ink is stored in 4 foot tall (approximately) totes and is pumped directly into the presses. The presses are designed to use a maximum of 3.36 gallons on ink per hour. The presses have computer controlled automated wash-up equipment which uses an expanding diaphragm to clean ink from the press.

One of the 6 color web heat set ink presses has a UV coating applicator at the end. The UV coating applicator has the potential to emit no VOCs and will receive very little attention in the Title V permit.

The air drying sheet fed presses are all essentially the same. The sheet fed presses each consist of a loading area, ink application stations, an aqueous coating application station (one machine has this removed), a dryer, a starch applicator (the machine with the aqueous coater removed also has this removed), and an unload area. Each press has 5 or 6 application stations (depending on the number of colors the press can apply) which use a fountain solution to distinguish print area from non-print area. Each station is designed to apply a maximum of 7.38 gallons of ink per hour but, due to the digital nature of the printing, no colors will be overlapped and the entire press may only apply 7.38 gallons of ink per hour. At the application stations, ink is troweled into an open leveler, removed after the job is done, cleaned out, and new ink is troweled into the station for the next job. Ambient air is blown across the sheets to dry the ink. Unlike the heat set ink web presses the sheet fed presses do not have automated cleanup equipment. These presses are manually cleaned. Hennegan will be removing one of the 6 color sheet fed presses before the new 8 color press is constructed (the press is being traded in).

The sheet fed 8 color UV ink press is similar to the air drying sheet fed presses. The main exceptions are that a UV lamp is used to set the ink to the sheet of paper and each application station is designed to apply a maximum of 7.66 gallons of ink per hour.

EMISSION AND OPERATING CAPS DESCRIPTION:

By reviewing Form DEP7007B it has been determined that 3 separate construction projects have occurred at Hennegan and 1 additional project is projected for late 1998. All projects at Hennegan will be required to comply with limits set by 401 KAR 59:010, new process operations limiting particulate emissions, and 401 KAR 50:012, general application of control procedures that are reasonable, available, and practical required for attainment of standards for national primary and secondary ambient air quality as required in 40 CFR 51 Subpart F. 01W was constructed in 1986 and only has the above referenced limits. 02W and 01SF were constructed in 1991 and will have limits to avoid application of 401 KAR 51:052, review of new sources in or impacting upon nonattainment areas (this modification would be major by itself without limits). 02SF, 03SF, 04SF, 05SF, and 06SF were constructed in 1996 and accepted less than significant restrictions at the time of construction in order to avoid application of 401 KAR 51:052. 07SF is projected to be constructed in late 1998 and will also need limits to avoid application of 401 KAR 51:052.

401 KAR 50:012 sets the following limits.

Operational limits

1) Negative pressure must be maintained on the heat set press ovens,
2) Isopropyl alcohol usage in the fountain solution of the heat set presses is limited to a maximum of 3% content by volume if the fountain is refrigerated below 60° F or a maximum of 1.6% alcohol content by volume for fountains at or above 60° F,
3) Isopropyl alcohol usage in the fountain solution of the sheet fed presses is limited to a maximum of 8.5% content by volume if the fountain is refrigerated below 60° F or a maximum of 5% alcohol content by volume for fountains at or above 60° F,
4) Cleaning solutions are limited to less than 30% VOC content or a VOC partial pressure of less than 10 mm Hg @ 20° C provided closed containers are used to contain unused and waste portions (including solvent laden towels) as demonstrated by at least 50% recovery of the cleaning solution, and

Emission Limit

1) At least 90% of all VOC emissions captured by the heat set press oven exhausts must be eliminated from the stack before released to the atmosphere.

401 KAR 51:052 avoidance will impose the following limits.

1) 02W and 01SF are limited to less than 100 tons per year of VOC emissions.
2) 02SF, 03SF, 04SF, 05SF, and 06SF are limited to less than 40 tons per year of VOC emissions.
3) 07SF is limited to less than 40 tons per year of VOC emissions.

See permit for specific restrictions accepted to ensure compliance.